WHAT IS CLAIMED IS:

1. A threading tap for cutting threads in blind holes, comprising an elongated body defining an axis of rotation and including axial front and rear end regions, the front end region including a threading portion having teeth defining a helical thread-cutting structure, and at least one helical flute formed in an outer periphery of the body and interrupting the thread-cutting structure, the at least one flute comprising interconnected flanks having exposed surfaces that are steam tempered.

2. The threading tap according to claim 1, wherein a helix angle of the flute relative to the axis is between 46° and 55°.

3. The threading tap according to claim 2, wherein the helix angle is between 48° and 50°.

4. The threading tap according to claim 3, wherein the helix angle is 48°.

5. The threading tap according to claim 1, wherein the thread-cutting structure is chamfered at a rear portion thereof.

6. The threading tap according to claim 5 wherein the chamfered portion forms an angle in the range of 8°-11° relative to the axis.

7. The threading tap according to claim 1 wherein a rake angle of the thread cutting structure is in the range of 8°-16°.

8. The threading tap according to claim 1, wherein the body comprises high-speed steel.

9. The threading tap according to claim 8, wherein the high-speed steel has a hardness of 63.5-66.5 HRC.

10. The threading tap according to claim 1 wherein the body comprises powder steel material having a hardness of 64.5-67.5 HRC.

11. The threading tap according to claim 1, wherein an exposed surface of the thread-cutting structure is defined by a physical vapour deposition coating.

12. The threading tap according to claim 11, wherein the coating comprises one of TiCN, TiN, TiA1N, TiA1CN, CrN, or TiA1N/WC/C.

13. The threading tap according to claim 1 wherein the at least one flute consists of three flutes distributed substantially evenly about a circumference of the body.

14. The threading tap according to claim 1 wherein the at least one flute consists of four flutes distributed substantially evenly about a circumference of the body.

15. A method of manufacturing a threading tap suitable for cutting threads in blind holes, including the following steps:

A) selecting a blank comprising an elongated body defining an axis of rotation and including axial front and rear regions;

B) forming at least one helical flute in an outer periphery of the body, the at least one flute comprising interconnected flanks having exposed surfaces; and

C) steam tempering the exposed surfaces.

16. The method according to claim 15, further including forming teeth on the body to define a helical thread-cutting structure interrupted by the flute, and coating the teeth by physical vapor deposition.

17. The method according to claim 16 where the physical vapor deposition is performed using one of TiCN, TiN, TiA1N, TiA1CN, CrN, or TiA1N/WC/C.

18. The method according to claim 16 wherein the step of forming at least one helical flute comprises forming at least three flutes.

19. The method according to claim 15, wherein the at least one flute is formed such that a helix angle of the flute relative to the axis is between 46° and 55°.

20. The method according to claim 15, wherein the at least one flute is formed such that angle of the flute is between 48° and 50°.

21. The method according to claim 15 wherein the at least one flute is formed such that the helix angle of the flute is 48°.

22. The method according to claim 16 wherein the thread-cutting structure has a chamfer at a rear section thereof.

23. The method according to claim 22, wherein a taper angle of the chamfer is between 8° and 11°.

24. The method according to claim 16 wherein the thread cutting structure has a rake angle within the range of 8°-16°.

25. The method according to claim 15, including forming a connector portion at the front region of the body.

26. The method according to claim 15, wherein the blank comprises a high-speed steel having a hardness of 63.5-66.5 HRC.

27. The method according to claim 15 wherein the blank comprises a powder steel having a hardness of 64.5-67.5 HRC.

28. The method according to claim 15, wherein the steam tempering is performed at a temperature between 500°C and 540°C.

29. The method according to claim 15, wherein the steam tempering is performed with nitrogen (N_2) and carbon dioxide (CO_2).

30. The method according to claim 15, wherein the steam tempering is performed with nitrogen (N_2) and water steam (H_2O).